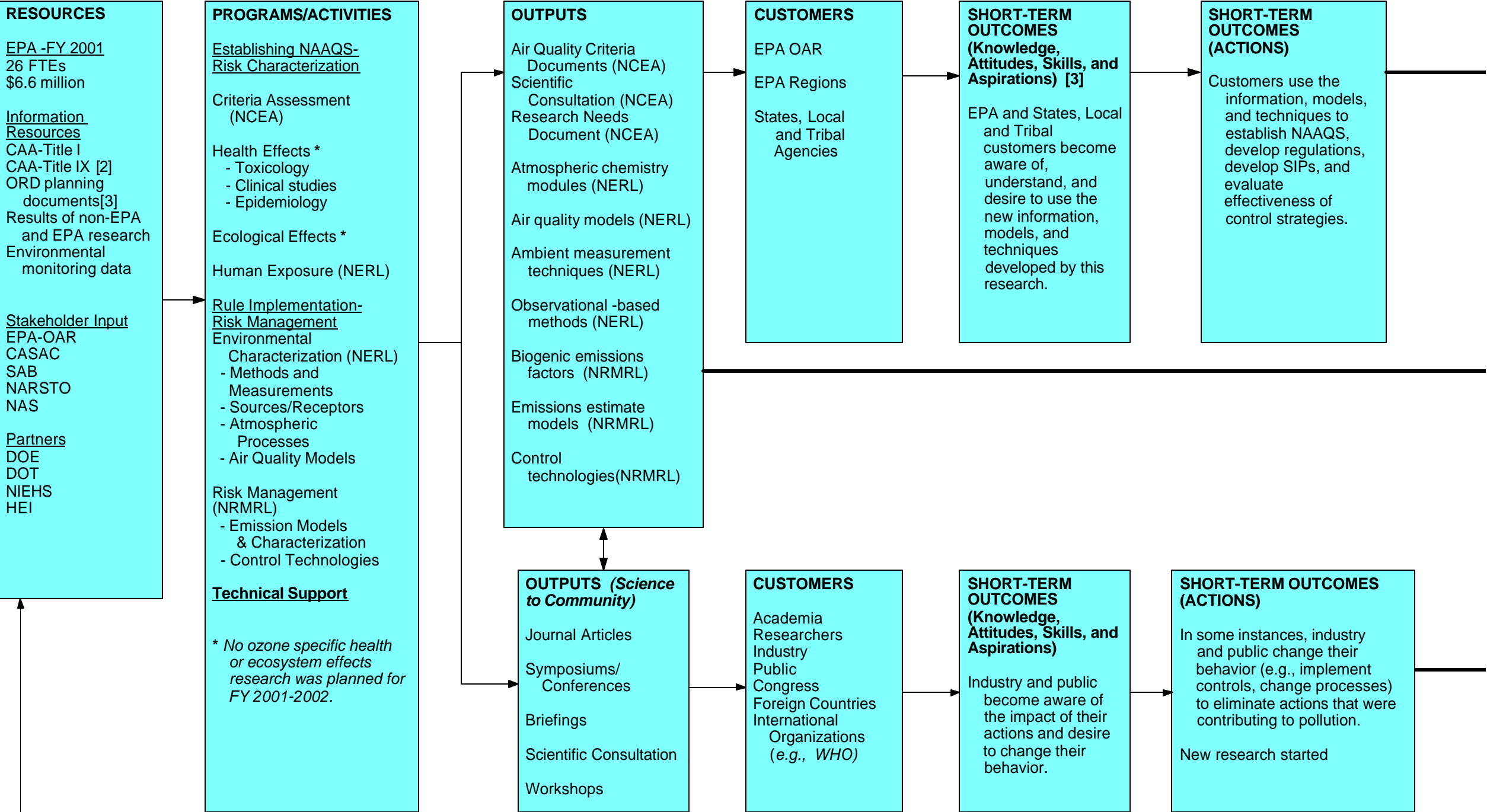


EPA HEADQUARTERS



## **NON-EPA OZONE RELATED RESEARCH**

### **U.S. FEDERAL**

National Academy of Science (NAS)

Office of Science and Technology Policy (OSTP)

Department of Transportation (DOT) - Transportation modeling projects, (e.g., Transportation Analysis and Simulation System)

Department of Energy (DOE) - (e.g., Refinery cost modeling analyses for EPA's clean fuels program)

### **STATE, LOCAL AND MUTLI-STATE**

California Air Resources Board - Funds numerous research projects related to air pollution and ozone.

Ozone Research Center (Primarily funded by New Jersey)

**NARSTO** (Public-private partnership for coordinating a research and development program for the study of primary and secondary pollutant species emitted, formed, transformed, and transported in the troposphere over the North American continent.)

Research focused on four broad technical areas:

- 1 - Atmospheric Chemistry and Modeling
- 2 - Emissions
- 3 - Observations
- 4 - Integrated Analysis and Assessment

**Note: As a result of programs constantly changing, this model remains a draft.**

*The research outputs become inputs (resources) for Subobjective 1.1.1 - Attain NAAQS for Ozone. These research outputs should be used by the ozone program to conduct numerous ozone program activities. These activities are represented as "Short-Term Outcomes (Actions)" in this model and as activities in the Attain NAAQS for Ozone logic model. Refer to the logic model for Subobjective 1.1.1 to see the short-term, intermediate and long-term environmental outcomes associated with these activities.*

Extent of research contribution to these outcomes unknown.

**INTERMEDIATE  
OUTCOMES  
STRESSORS**

Emissions reduced.

**INTERMEDIATE  
OUTCOMES  
AMBIENT  
CONDITIONS**

Ambient conditions improved.

**INTERMEDIATE  
OUTCOMES  
EXPOSURE**

Exposure reduced.

**LONG-TERM  
IMPACT**

Improved human and ecosystem health.

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**EXTERNALITIES:**

(Factors beyond the control of the program that hinder or contribute to achievement of the program's goals.)

Economic conditions

Congressional and State budgetary appropriations

Weather

Lawsuits and court decisions

Public preferences/trends

Politics

Lobbying from industry and environmental groups

Energy supply conditions

ACRONYMS :

CASAC	Clean Air Scientific Advisory Committee
HEI	Health Effects Institute
NARSTO	North American Consortium for Atmospheric Research in Support of Air Quality Management
NIEHS	National Institute of Environmental Health Sciences
SAB	Science Advisory Board

FOOTNOTES:

- [1] = This model represents the intended design of the program based on EPA planning and budget documents, numerous EPA web-based information, applicable statutes and regulations, interviews with EPA officials, and comments from EPA officials on the preliminary versions of the model. We did not discuss the model or its contents with EPA external stakeholders such as Congressional members, industry groups, environmental groups, or state agencies. Further, we did not perform work to test whether the program is being implemented as depicted in this model.
- [2] = The Clean Air Act (CAA) calls for National Ambient Air Quality Standards (NAAQS) to be reviewed on a five year cycle. The next tropospheric ozone NAAQS review will be due in 2002 and 2007. Title IX of the CAA Amendments requires that the EPA conduct a research program on the short-term and long-term effects of air pollutants on human health. Title IX also specifically calls for a research program testing and developing methods for sampling, measurement, monitoring, analysis, and modeling of tropospheric ozone and its precursors. It also calls for a program of engineering and technology to develop, evaluate and demonstrate non-regulatory strategies and technologies for air pollution prevention. These research mandates are coupled with the fundamental mandate that EPA use the best science and technology information to develop policies and programs to protect human health and welfare from the adverse effects of air pollutants.
- [3] = EPA and ORD Strategic Plan, Agency Science Plans, Individual Research Strategies and Plans, Multi-Year Plans, and Annual Plans.